Application No. 10/791,532 // Attorney Docket No. 82556 Reply of Office Action of November 15, 2006

## **Amendments to the Title**

Please amend the title of this application, original oath or declaration excepted, as follows.

Method and Device for Detecting the Signal on a Defect Disc <u>having a Defect by Utilizing an RF Signal</u> and Its <u>Derivatives</u>

## **Amendments to the Specification**

Please replace the first paragraph of page 25 of the specification as filed with the following amended paragraph.

Method and Device for Detecting the Signal on a <del>Defect</del> Disc <u>having a Defect by Utilizing an RF Signal</u> and Its Derivatives

Please replace the third paragraph of page 25 of the specification as filed (the Abstract) with the following amended paragraph:

The present invention provides a device for detecting the signal on a defect disc. The device includes a servo control unit, a data path control unit, a defect detection unit, and a logic combination unit. The servo control unit handles the related electromechanical devices. The data path control unit further includes a preamplifier receiving data from a lens and generating RF signals for data process, servo control signals for the servo control unit and various signals for defect detection; a slicer receiving and digitalizing the RF signals; a phase lock loop (PLL) synchronizing the digitalized RF signals to a system clock and counting the length of the digitalized RF signals; and a decoder decoding the length of the digitalized RF signals to a host. The defect detection unit receives the various signals for detecting different kinds of defects to set corresponding defect flag signals. The defect detection unit includes means for ADefect1 detection, means for EFMDefect detection, means for RPDefect detection. The logic combination unit runs an appropriate logic operation on the defect flag signals to trigger defect protection for the servo control unit and the data path control unit.

Please replace the first full paragraph of page 11 of the specification as filed with the following amended paragraph:

Referring to FIG. 3C, EFMDefect detection is illustrated. The terms "n1," "n2," "n3," and "n4" refer to independent integers of any value, including zero. In step 331, while a data sector or a data frame has more than n1 RF patterns are shorter than a first predetermined data length, the EFMDefect flag is set to "1". For example, the first predetermined data length is 3T for both CD and DVD data. In step 332, while the data sector or the data frame has more than n2 RF patterns are longer than a second predetermined data length, the EFMDefect flag is set to "1". For example, the second predetermined data length is respectively 11T and 14T for CD and DVD data. In step 333, while the data sector or the data frame has more than n3 RF patterns are longer than a serious data length, such as 18T, the EFMDefect flag is set to "1". On the other hand, while a data sector or a data frame has more than n4 RF patterns are between the first and the second predetermined data length, the EFMDefect flag is set to "0". The EFMDefect detection is appropriately used for detecting an abnormal data length and it is real-time defect detection. Wherein, the EFMDefect detection is more sensitive while the variables n1, n2, n3, and n4 have small values.